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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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[REDACTED] EXAMINER

CRUZ, LOURDES C

[REDACTED] ART UNIT [REDACTED] PAPER NUMBER

2827

DATE MAILED: 10/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/971,952

Applicant(s)

PRINDIVILLE ET AL. 

Examiner

Lourdes C. Cruz

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 7-1-02.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 30-32 and 36-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 30-32 and 36-40 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on 22 July 2002 is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.6.

- 4) Interview Summary (PTO-413) Paper No(s). _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (e) the invention was described in—
(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 30-32 and 37-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Eng et al. (5952611).

Eng et al. teaches:

- A substrate 76 having a first surface with a pattern (84,100) of conductors
- The substrate having a second surface including a die attach site
- A wire bond slot 86 forming an opening through the substrate
- A cover member 60, wherein the cover member comprises tape – Col 3, lines 30-40–, does not comprise a functional die and covers the majority of the opening.

- The wire bond slot is associated with the die attach site and the cover member comprises a die

See that "defective" is being considered a label. Labels or functional language such as we have here in "defective" does not structurally distinguish the claim over the prior art which shows a structure that may likewise be labeled defective. See *In re Pearson* 181 USPQ 641, *Ex parte Minks* 169 USPQ 120, and *In re Swinwhart* 169 USPQ 226.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 36,39, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eng et al. (5952611).

See that Eng et al. teaches all the above. However, see that Eng et al does not disclose the specific dimensions of the cover relative to the opening. In spite of this:

This proportion in dimensions does not cause any critical or unexpected results to the device's operation. Rather it is merely an obvious design choice determined by routine experimentation. In *Aller*, the court stated "Where the general conditions of a

claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456 105 USPQ 233,235 (CCPA 1995). It would have been obvious to one of ordinary skill in the art at the time the invention was made to increase the coverage area of the cover in order to increase the adhesion area and therefore improve adhesion.

Claims 30-32, 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eng et al. (5952611) in view of Vindasius et al. (US 6098278).

Eng et al. teaches:

- A substrate 76 having a first surface with a pattern 84,100 of conductors
- The substrate having a second surface including a die attach site
- A wire bond slot 86 forming an opening through the substrate
- A cover member 60, wherein the cover member comprises tape – Col 3, lines 30-40--, does not comprise a functional die and covers the majority of the opening.
- The wire bond slot is associated with the die attach site and the cover member comprises a die

However, see that Eng et al. fails to mention defective die sites. See that Vindasius discloses (col. 4, lines 18+) defective dies marked with dots 34. It would be obvious to incorporate the teachings of Vindasius to those of Eng et al. in order to

provide Eng et al.'s die attach area with a defective die which will provide a defective die attach area since defective dies are common in the manufacturing thereof as suggested by Vindasius.

Claims 36,39, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eng et al. (5952611) in view of Vindasius et al. (US 6098278) further in view of Corisis (US 6198162,IDS).

See that Eng et al. in view of Vindasius et al. teach a semiconductor device with defective die sites, as explained above. However, see that Eng et al. in view of Vindasius et al. do not disclose the specific dimensions of the cover relative to the opening. Nonetheless, see that Corisis (Fig. 5) teaches a semiconductor device with a cover 10 that is proportionally larger than the die. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Corisis to those of Eng. et al. in view of Vindasius et al. in order to improve adhesion of the die in a semiconductor device with defective die sites.

Response to Arguments

Applicant's arguments filed 7-1-02 have been fully considered but they are not persuasive. Applicant argues that:

- Eng et al. does not teach a cover

- Vindasius et al. discloses defective dies rather than defective die attach sites, while in claim 30 the aspect that is defective is the attach site not the die itself

These arguments are not persuasive because:

- The prior art discloses cover member 60. Applicant has failed to structurally distinguish the cover member of the present invention from that of the prior art. Furthermore, the term "cover" is considered a label. Labels, statements of intended use, or functional language such as we have here in "cover" does not structurally distinguish the claims over the prior art which shows a structure that may likewise be labeled, used or function as a cover rather than an "adhesive layer". See *In re Pearson* 181 USPQ 641, *Ex parte Minks* 169 USPQ 120, and *In re Swinwhart* 169 USPQ 226. Moreover, the cover member 60 or "adhesive layer" cover the die, and therefore anticipate the invention as claimed.
- Since the Prior art discloses defective dies, it inherently discloses defective die attach areas or sites. The examiner is puzzled by applicant's arguments stating that the prior art does not disclose the invention as claimed since newly added claim 38 claims a defective die. The die attach area corresponds to a die. Additionally, and referring to applicant's reference to parts of the disclosure, although the claims are interpreted in light of the specification, limitations from

the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lourdes C. Cruz whose telephone number is 703-306-5691. The examiner can normally be reached on M-F 10:00- 6:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on 703-305-9883. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Lourdes C. Cruz
Examiner
Art Unit 2827


Lourdes Cruz
October 17, 2002


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SUPERVISORY PATENT EXAMINER
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